

○ Results (water)

Locations				2019 August - September Survey											
		Latitude	Longitude	pH	BOD (mg/L)	COD (mg/L)	DO (mg/L)	Electric conductivity (mS/m)	Salinity	TOC (mg/L)	SS (mg/L)	Turbidity (FNU)	Cs-134 (Bq/L)	Cs-137 (Bq/L)	Sr-90 (Bq/L)
Abukuma River System	A-1(Surface layer)	37.6210°	140.5218°	7.3	1.5	4.2	8.6	17.9	0.09	1.6	9	4.7	N.D.(0.0013)	0.012	0.0011
	A-1(Bottom layer)	37.6210°	140.5218°	7.4	1.4	4.1	8.8	18.3	0.09	1.7	9	4.8	N.D.(0.0014)	0.015	-
	A-2	37.5673°	140.3946°	7.4	0.7	3.3	9.5	10.6	0.06	1.2	5	3.7	N.D.(0.0015)	0.013	-
	B-2	37.8121°	140.5058°	7.4	0.9	3.3	9.2	16.7	0.08	1.5	8	5.1	N.D.(0.0012)	0.0088	-
	B-3	37.8182°	140.4679°	7.5	0.6	3.3	9.7	9.3	0.05	1.3	3	1.4	0.0013	0.0072	-
Uda River	C-6	37.7764°	140.8877°	7.6	<0.5	2.9	9.0	11.4	0.06	1.3	3	1.9	N.D.(0.0015)	0.0075	0.00089
Mano River	D-4 a	37.7308°	140.9081°	7.3	0.5	3.3	9.1	11.0	0.06	1.3	1	0.8	0.0018	0.021	0.0011
Niida River	E-2 a	37.6640°	140.9447°	7.0	0.6	3.7	8.9	8.7	0.05	1.6	4	3.5	0.0020	0.039	0.0017
Ota River	F-1	37.5975°	140.9252°	7.1	0.7	3.2	9.0	5.6	0.03	1.4	1	1.0	0.014	0.19	0.0033
Lake Hayama (Mano Dam)	G-1(Surface layer)	37.7348°	140.8102°	8.4	1.5	5.0	9.7	7.5	0.04	2.0	2	2.0	0.0015	0.025	-
	G-1(Bottom layer)	37.7348°	140.8102°	7.8	1.3	4.9	8.4	7.8	0.04	1.9	2	2.1	N.D.(0.0014)	0.026	0.0012
	G-2	37.7267°	140.8223°	8.4	1.4	4.9	8.9	7.7	0.04	2.4	2	2.0	0.0013	0.015	-
Lake Akimoto	H-2(Surface layer)	37.6616°	140.1226°	7.2	0.7	4.0	7.9	5.7	0.03	2.0	2	2.0	N.D.(0.0016)	0.011	-
	H-2(Bottom layer)	37.6616°	140.1226°	6.6	1.2	4.8	8.1	7.0	0.04	1.7	15	12.0	0.0045	0.070	0.0023
Lake Inawashiro	J-1(Surface layer)	37.4203°	140.1008°	6.7	<0.5	1.8	7.9	11.5	0.06	1.0	<1	0.5	N.D.(0.0015)	0.0070	-
	J-1(Bottom layer)	37.4203°	140.1008°	6.7	0.8	4.6	7.6	11.6	0.06	2.5	4	1.6	N.D.(0.0014)	0.0072	0.00093
Off the mouth of the Abukuma River (Sea Area in front of the mouth of the Abukuma River)	K-3(Surface layer)	38.0458°	140.9518°	8.1	0.7	1.9	7.3	4660	30.54	1.1	1	0.8	N.D.(0.0014)	0.0022	-
	K-3(Bottom layer)	38.0458°	140.9518°	8.0	<0.5	1.2	6.8	4990	33.50	0.9	2	1.5	N.D.(0.0014)	0.0078	0.00092
Off Soma City (Matsukawaura)	L-2	37.8155°	140.9763°	8.0	0.8	2.2	6.9	4630	31.39	1.4	8	4.2	0.0058	0.086	0.00091
Off Iwaki City (Hisanohama)	M-2(Surface layer)	37.1996°	141.0853°	8.1	0.7	1.4	7.2	4980	33.29	1.2	3	0.5	N.D.(0.0014)	0.0024	-
	M-2(Bottom layer)	37.1996°	141.0853°	8.1	0.6	1.2	7.8	4940	33.88	0.9	3	0.8	N.D.(0.0012)	0.0041	0.00093

Note) N.D. means to be below the detection limit and figures in parentheses show the detection limit.

○ Results (sediments)

Locations				2019 August - September Survey																
				pH	Redox potential E _{N.H.E} (mV)	Water content (%)	IL (%)	TOC (mg/g-dry)	Soil particle density (g/cm ³)	Grain size distribution								Cs-134 (Bq/kg-dry)	Cs-137 (Bq/kg-dry)	Sr-90 (Bq/kg-dry)
										Gravel (2-75mm) (%)	Coarse sand (0.85-2mm) (%)	Medium sand (0.25-0.85mm) (%)	Fine sand (0.075-0.25mm) (%)	Silt (0.005-0.075mm) (%)	Clay (Less than 0.005mm) (%)	Median grain diameter (mm)	Maximum grain diameter (mm)			
Abukuma River System	A-1	37.6210°	140.5218°	7.3	171	55.9	10.1	32.9	2.598	0.0	0.0	2.7	36.8	29.9	30.6	0.044	2.0	57	870	0.51
	A-2	37.5673°	140.3946°	7.3	279	24.2	2.1	2.9	2.669	11.6	46.1	32.0	5.9	0.7	3.7	0.98	4.8	13	160	-
	B-2	37.8121°	140.5058°	7.5	258	25.6	1.8	2.5	2.726	0.2	0.9	57.5	38.3	0.8	2.3	0.28	4.8	11	160	-
	B-3	37.8182°	140.4679°	7.5	269	23.7	1.6	1.6	2.700	8.6	24.0	57.6	7.3	2.5		0.62	4.8	5.5	88	-
Uda River	C-6	37.7764°	140.8877°	7.7	367	19.9	1.5	2.1	2.697	14.1	25.3	55.4	3.7	1.5		0.71	9.5	9.3	130	0.76
Mano River	D-4 a	37.7308°	140.9081°	7.5	376	17.8	1.7	2.4	2.708	28.5	43.0	25.3	2.3	0.9		1.3	9.5	18	260	0.81
Niida River	E-2 a	37.6640°	140.9447°	7.1	63	64.3	13.3	47.1	2.505	1.3	3.4	4.1	17.5	41.0	32.7	0.018	4.8	480	6400	1.3
Ota River	F-1	37.5975°	140.9252°	7.2	389	17.8	1.1	2.7	2.651	22.2	36.6	33.0	5.6	2.6		1.1	9.5	100	1500	0.48
Lake Hayama (Mano Dam)	G-1	37.7348°	140.8102°	7.3	370	23.8	2.8	3.7	2.691	15.9	27.1	37.4	14.8	1.9	2.9	0.67	19	27	420	1.6
	G-2	37.7267°	140.8223°	7.5	117	58.3	12.0	35.8	2.543	0.0	0.0	0.1	4.6	66.9	28.4	0.017	4.8	200	2900	-
Lake Akimoto	H-2	37.6616°	140.1226°	6.8	48	75.7	13.6	44.3	2.459	0.0	0.0	0.2	0.3	35.2	64.3	0.0026	2.0	160	2100	1.4
Lake Inawashiro	J-1	37.4203°	140.1008°	7.3	383	26.5	2.0	3.7	2.677	0.4	3.3	58.9	36.0	1.4		0.30	4.8	18	250	0.23
Off the mouth of the Abukuma River (Sea Area in front of the mouth of the Abukuma River)	K-3	38.0458°	140.9518°	7.6	209	39.8	5.4	11.3	2.677	0.0	0.2	0.3	26.0	54.4	19.1	0.051	2.0	20	270	N.D.(0.13)
Off Soma City (Matsukawaura)	L-2	37.8155°	140.9763°	7.8	275	19.5	1.0	1.5	2.709	0.0	0.6	68.4	27.5	1.5	2.0	0.30	2.0	1.3	15	N.D.(0.13)
Off Iwaki City (Hisanohama)	M-2	37.1996°	141.0853°	7.7	273	22.3	1.8	2.1	2.778	1.0	0.7	2.3	92.5	1.6	1.9	0.15	4.8	1.3	22	N.D.(0.15)

Note) N.D. means to be below the detection limit and figures in parentheses show the detection limit.

○ Results (aquatic organisms)

Location		Sampling point	Sampling date	Division	Class	Order	Family	Scientific name	English name	Population	Sample weight (kg-wet)	Note			Radioactive cesium (Bq/kg-wet)			Sr-90 (Bq/kg-wet)
												Growth stage	Stomach contents	Measurement site	Total	Cs-134	Cs-137	
Abukuma River System	A-1	The main stream of the Abukuma River	2019/8/19	Arthropoda	Malacostraca	Decapoda	Cambaridae	<i>Procambarus clarkii</i>	Red swamp crawfish	2	0.026	Imago	-	-	3.1	N.D.(1.5)	3.1	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	9	0.32	Immature fish,Mature fish	-	-	6.43	0.43	6.0	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Opsariichthys platypus</i>	Pale chub	93	0.51	Immature fish	-	-	14.1	1.1	13	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Cyprinus carpio</i>	Common carp	1	0.87	Mature fish	Obscure digesta	Viscera removed	4.47	0.27	4.2	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Gnathopogon elongatus elongatus</i>	Gnathopogon elongatus elongatus	4	0.021	Immature fish,Mature fish	-	-	2.9	N.D.(2.6)	2.9	-
				Vertebrata	Osteichthyes	Cypriniformes	Cobitidae	<i>Misgurnus anguillicaudatus</i>	Oriental weatherfish	1	0.012	Mature fish	-	-	N.D.	N.D.(3.3)	N.D.(2.7)	-
				Vertebrata	Osteichthyes	Cypriniformes	Cobitidae	<i>Nemacheilus toni</i>	Stone loach	7	0.047	Immature fish	-	-	1.9	N.D.(1.5)	1.9	-
				Vertebrata	Osteichthyes	Perciformes	Centrarchidae	<i>Micropterus salmoides</i>	Largemouth bass	2	0.016	Immature fish	-	-	5.2	N.D.(2.5)	5.2	-
				Vertebrata	Osteichthyes	Perciformes	Centrarchidae	<i>Micropterus dolomieu</i>	Small mouth bass	3	0.23	Immature fish	-	-	6.22	0.42	5.8	-
				Vertebrata	Osteichthyes	Perciformes	Centrarchidae	<i>Micropterus dolomieu</i>	Small mouth bass	1	0.63	Mature fish	Empty stomach	Viscera removed	10.43	0.63	9.8	-
				Vertebrata	Osteichthyes	Perciformes	Centrarchidae	<i>Lepomis macrochirus</i>	Bluegill	2	0.067	Immature fish	-	-	4.5	N.D.(0.97)	4.5	-
				Vertebrata	Osteichthyes	Perciformes	Actinopterygii	<i>Channa argus</i>	Snakehead	1	1.6	Mature fish	Empty stomach	Viscera removed	95.4	5.4	90	0.31
				Vertebrata	Osteichthyes	Siluriformes	Ictaluridae	<i>Ictalurus punctatus</i>	Channel catfish	2	2.1	Immature fish,Mature fish	Empty stomach	Viscera removed	21.2	2.2	19	0.31
	A-2	Harase River	2019/8/20	Algae/plant	-	-	-	-	Riverbed Deposits (Include algae)	-	0.017	-	-	-	243	13	230	-
				Arthropoda	Insecta	Trichoptera	Stenopsychidae	<i>Stenopsyche marmorata</i>	Stenopsyche marmorata	65	0.025	Larva	-	-	15.8	1.8	14	-
				Arthropoda	Insecta	Odonata	Corduliidae	<i>Macromia amphigena amphigena</i>	Macromia amphigena	25	0.010	Larva(Dragonfly larva)	-	-	7.9	N.D.(4.1)	7.9	-
				Arthropoda	Insecta	Odonata	Cordulegastridae	<i>Anotogaster sieboldii</i>	Anotogaster sieboldii									
				Arthropoda	Insecta	Odonata	Gomphidae	<i>Melligomphus viridicostus</i>	<u>Melligomphus viridicostus</u>									
				Arthropoda	Insecta	Odonata	Gomphidae	<i>Sieboldius albardae</i>	<u>Sieboldius albardae</u>									
				Arthropoda	Insecta	Odonata	Gomphidae	<i>Davidius sp.</i>	Davidius									
				Arthropoda	Insecta	Odonata	Gomphidae	<i>Asiagomphus melaenops</i>	Asiagomphus melaenops									
				Arthropoda	Malacostraca	Decapoda	Potamidae	<i>Geothelphusa dehaani</i>	Japanese freshwater crab	10	0.014	Juvenile	-	-	5.1	N.D.(3.0)	5.1	-
				Arthropoda	Malacostraca	Decapoda	Atyidae	<i>Neocaridina sp.</i>	Neocaridina	207	0.038	Juvenile,Imago	-	-	9.4	N.D.(1.5)	9.4	-
				Mollusca	Gastropoda	Discopoda	Pleuroceridae	<i>Semisulcospira libertina</i>	Semisulcospira libertina	30	0.016	Imago	-	Molluscous part	18.4	2.4	16	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Phoxinus lagowskii steindachneri</i>	Amur minnow	8	0.054	Immature fish,Mature fish	-	-	11	N.D.(1.2)	11	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	3	0.060	Immature fish,Mature fish	-	-	17.3	1.3	16	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Opsariichthys platypus</i>	Pale chub	32	0.14	Immature fish	-	-	10.8	1.1	9.7	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Candidia temminckii</i>	Dark chub	6	0.047	Immature fish,Mature fish	-	-	6.5	N.D.(1.2)	6.5	-
				Vertebrata	Osteichthyes	Cypriniformes	Cobitidae	<i>Misgurnus anguillicaudatus</i>	Oriental weatherfish	56	0.086	Immature fish,Mature fish	-	-	9.81	0.81	9.0	-
				Vertebrata	Osteichthyes	Cypriniformes	Cobitidae	<i>Nemacheilus toni</i>	Stone loach	30	0.21	Immature fish	-	-	4.33	0.33	4.0	-
				Vertebrata	Amphibia	Anura	Ranidae	<i>Rana japonica</i>	<u>Japanese brown frog</u>	7	0.026	Imago	-	-	33.1	2.1	31	-
				Vertebrata	Amphibia	Anura	Pelophylax	<i>Pelophylax porosus porosus</i>	Tokyo daruma pond frog									
				Coarse Particulate Organic Matter	-	-	-	-	Bottom fallen leaves	-	0.18	-	-	-	39.1	2.1	37	-

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*3: For a sample made of multiple types of aquatic organisms, the English name of the dominant one largest in number is underlined.

*4: Basically, measurement was conducted for all organism samples. Viscera (stomach and bowels) were removed for the measurement when possible so that undigested food and sediments, etc. in the digestive system would be excluded.

*5: Plankton (suspended algae) is the residue remaining after the filtration of lake water or seawater with a plankton net (40μm-mesh).

*6: River bottom materials (incl. algae) are algae, etc. that were scratched off stones with a brush, etc. and may include very fine particles such as inorganic silt and clay.

*7: N.D. means to be below the detection limit and figures in parentheses show the detection limit.

*8: Activity concentrations include counting errors, but the details are omitted here.

Location		Sampling point	Sampling date	Division	Class	Order	Family	Scientific name	English name	Population	Sample weight (kg-wet)	Note			Radioactive cesium (Bq/kg-wet)			Sr-90 (Bq/kg-wet)
												Growth stage	Stomach contents	Measurement site	Total	Cs-134	Cs-137	
Abukuma River System	B-2	The main stream of the Abukuma River	2019/8/30	Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	10	2.8	Mature fish	Obscure digesta	Viscera removed	8.72	0.42	8.3	0.18
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Carassius auratus</i>	<i>Carassius auratus langsdorfii</i>	2	0.11	Immature fish,Mature fish	Obscure digesta	Viscera removed	8.94	0.94	8.0	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Hemibarbus barbus</i>	Hemibarbus barbus	2	3.2	Mature fish	Obscure digesta	Viscera removed	5.97	0.37	5.6	0.30
				Vertebrata	Osteichthyes	Perciformes	Centrarchidae	<i>Micropterus dolomieu</i>	Small mouth bass	18	4.0	Immature fish,Mature fish	Red swamp crawfish,Pseudogobio esocinus	Viscera removed	21.5	1.5	20	0.40
				Vertebrata	Osteichthyes	Perciformes	Centrarchidae	<i>Lepomis macrochirus</i>	Bluegill	1	0.081	Mature fish	Empty stomach	Viscera removed	5.2	N.D.(2.1)	5.2	-
				Vertebrata	Osteichthyes	Siluriformes	Ictaluridae	<i>Ictalurus punctatus</i>	Channel catfish	4	3.0	Immature fish	Red swamp crawfish,Waterweed	Viscera removed	8.94	0.54	8.4	0.20
	B-3	Surikami River	2019/8/27	Algae/plant	-	-	-	-	Riverbed Deposits (Include algae)	-	0.0084	-	-	-	100.7	8.7	92	-
				Arthropoda	Insecta	Trichoptera	Stenopsychidae	<i>Stenopsyche marmorata</i>	Stenopsyche marmorata	303	0.089	Larva	-	-	35.8	2.8	33	-
				Arthropoda	Insecta	Odonata	Corduliidae	<i>Macromia amphigena amphigena</i>	Macromia amphigena	76	0.032	Larva(Dragonfly larva)	-	-	2.4	N.D.(1.7)	2.4	-
				Arthropoda	Insecta	Odonata	Gomphidae	<i>Stylogomphus suzukii</i>	Stylogomphus suzukii									
				Arthropoda	Insecta	Odonata	Gomphidae	<i>Meligomphus viridicostus</i>	Meligomphus viridicostus									
				Arthropoda	Insecta	Odonata	Gomphidae	<i>Sieboldius albardae</i>	<u>Sieboldius albardae</u>									
				Arthropoda	Insecta	Odonata	Gomphidae	<i>Davidius sp.</i>	Davidius									
				Arthropoda	Insecta	Megaloptera	Corydalidae	<i>Protohermes grandis</i>	Protohermes grandis	69	0.050	Larva	-	-	2.7	N.D.(1.2)	2.7	-
				Arthropoda	Malacostraca	Decapoda	Cambaridae	<i>Procambarus clarkii</i>	Red swamp crawfish	6	0.13	Imago	-	-	8.39	0.59	7.8	-
				Vertebrata	Osteichthyes	Anguilliformes	Anguillidae	<i>Anguilla japonica</i>	Japanese eel	3	1.4	Immature fish,Mature fish	Empty stomach	Viscera removed	7.27	0.67	6.6	0.12
				Vertebrata	Osteichthyes	Scorpaeniformes	Cottidae	<i>Cottus pollux</i>	Japanese fluvial sculpin	40	0.49	Immature fish	-	-	2.4	N.D.(0.41)	2.4	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Phoxinus lagowskii steindachneri</i>	Amur minnow	48	0.24	Immature fish,Mature fish	-	-	5.96	0.56	5.4	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Candidia temminckii</i>	Dark chub	17	0.085	Immature fish,Mature fish	-	-	3.2	N.D.(1.1)	3.2	-
				Vertebrata	Osteichthyes	Cypriniformes	Cobitidae	<i>Nemacheilus toni</i>	Stone loach	43	0.43	Immature fish	-	-	1.8	N.D.(0.43)	1.8	-
				Vertebrata	Osteichthyes	Salmoniformes	Osmeridae	<i>Plecoglossus altivelis altivelis</i>	Sweetfish	1	0.036	Mature fish	-	-	14	N.D.(1.8)	14	-
				Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<i>Oncorhynchus masou</i>	Yamame trout	1	0.0086	Immature fish	-	-	N.D.	N.D.(4.7)	N.D.(4.4)	-
				Vertebrata	Osteichthyes	Perciformes	Centrarchidae	<i>Lepomis macrochirus</i>	Bluegill	2	0.069	Immature fish	-	-	3.6	N.D.(1.1)	3.6	-
				Vertebrata	Osteichthyes	Siluriformes	Bagridae	<i>Tachysurus tokiensis</i>	Cut-tailed bullhead	2	0.081	Immature fish,Mature fish	-	-	12.0	1.0	11	-
				Vertebrata	Amphibia	Anura	Glandirana	<i>Glandirana rugosa</i>	Wrinkled frog	1	0.0098	Imago	-	-	3.8	N.D.(3.3)	3.8	-
				Coarse Particulate Organic Matter	-	-	-	-	Bottom fallen leaves	-	0.24	-	-	-	24.7	1.7	23	-

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Location		Sampling point	Sampling date	Division	Class	Order	Family	Scientific name	English name	Population	Sample weight (kg-wet)	Note			Radioactive cesium (Bq/kg-wet)			Sr-90 (Bq/kg-wet)
												Growth stage	Stomach contents	Measurement site	Total	Cs-134	Cs-137	
Uda River	C-6	The main stream of the Uda River	2019/8/29	Algae/plant	-	-	-	-	Riverbed Deposits (Include algae)	-	0.0093	-	-	-	60	N.D.(8.8)	60	-
				Arthropoda	Insecta	Trichoptera	Stenopsychidae	<i>Stenopsyche marmorata</i>	Stenopsyche marmorata	60	0.0093	Larva	-	-	12	N.D.(4.6)	12	-
				Arthropoda	Insecta	Odonata	Corduliidae	<i>Macromia amphigena amphigena</i>	Macromia amphigena	88	0.013	Larva(Dragonfly larva)	-	-	2.7	N.D.(2.9)	2.7	-
				Arthropoda	Insecta	Odonata	Gomphidae	<i>Stylogomphus suzukii</i>	Stylogomphus suzukii									
				Arthropoda	Insecta	Odonata	Gomphidae	<i>Sieboldius albardae</i>	Sieboldius albardae									
				Arthropoda	Insecta	Odonata	Gomphidae	<i>Davidius sp.</i>	<u>Davidius</u>									
				Arthropoda	Insecta	Odonata	Aeshnidae	<i>Boyeria maclachlani</i>	Boyeria maclachlani									
				Arthropoda	Insecta	Megaloptera	Corydalidae	<i>Protohermes grandis</i>	Protohermes grandis	48	0.019	Larva	-	-	3.9	N.D.(2.2)	3.9	-
			2019/8/20	Arthropoda	Malacostraca	Decapoda	Cambaridae	<i>Procambarus clarkii</i>	Red swamp crawfish	10	0.13	Juvenile,Imago	-	-	7.0	N.D.(0.55)	7.0	-
				Arthropoda	Malacostraca	Decapoda	Palaemonidae	<i>Palaemon paucidens</i>	Common prawn	82	0.046	Juvenile,Imago	-	-	3.8	N.D.(1.4)	3.8	-
			2019/8/29	Arthropoda	Malacostraca	Decapoda	Atyidae	<i>Paratya improvisa</i>	Freshwater shrimp	305	0.043	Juvenile,Imago	-	-	8.1	N.D.(0.92)	8.1	-
			2019/8/20	Arthropoda	Malacostraca	Decapoda	Varunidae	<i>Eriocheir japonica</i>	Japanese mitten crab	6	0.14	Juvenile	-	-	8.8	N.D.(0.73)	8.8	-
				Vertebrata	Osteichthyes	Anguilliformes	Anguillidae	<i>Anguilla japonica</i>	Japanese eel	3	0.97	Immature fish,Mature fish	Obscure digesta	Viscera removed	25.7	1.7	24	0.062
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Opsariichthys platypus</i>	Pale chub	20	0.15	Immature fish	-	-	5.70	0.40	5.3	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Candidia temminckii</i>	Dark chub	27	0.28	Immature fish,Mature fish	-	-	4.2	N.D.(0.44)	4.2	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Carassius auratus</i>	Carassius auratus langsdorfii	1	0.042	Mature fish	-	-	3.9	N.D.(1.4)	3.9	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Gnathopogon elongatus elongatus</i>	Gnathopogon elongatus elongatus	40	0.10	Immature fish,Mature fish	-	-	1.9	N.D.(0.70)	1.9	-
				Vertebrata	Osteichthyes	Cypriniformes	Cobitidae	<i>Cobitis biwae</i>	Cobitis biwae	8	0.025	Immature fish,Mature fish	-	-	5.3	N.D.(2.3)	5.3	-
				Vertebrata	Osteichthyes	Salmoniformes	Osmeridae	<i>Plecoglossus altivelis altivelis</i>	Sweetfish	81	1.8	Immature fish,Mature fish	-	-	15.94	0.94	15	0.15
				Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Gymnogobius urotaenia</i>	Goby	79	0.31	Immature fish	-	-	6.44	0.34	6.1	-
				Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Rhinogobius fluviatilis</i>	Rhinogobius fluviatilis	50	0.15	Mature fish	-	-	5.0	N.D.(0.44)	5.0	-
				Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Rhinogobius nagoyae</i>	Rhinogobius nagoyae									
				Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Rhinogobius sp.</i>	Rhinogobius									
				Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Tridentiger brevispinis</i>	Dusky tripletooth goby	5	0.054	Mature fish	-	-	6.5	N.D.(0.99)	6.5	-
				Vertebrata	Osteichthyes	Siluriformes	Bagridae	<i>Tachysurus tokiensis</i>	Cut-tailed bullhead	4	0.045	Immature fish,Mature fish	-	-	2.0	N.D.(1.3)	2.0	-
			2019/8/29	Vertebrata	Amphibia	Anura	Ranidae	<i>Rana japonica</i>	Japanese brown frog	5	0.025	Imago	-	-	20	N.D.(2.2)	20	-
				Coarse Particulate Organic Matter	-	-	-	-	Bottom fallen leaves	-	0.22	-	-	-	4.1	N.D.(0.43)	4.1	-

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*5: Plankton (suspended algae) is the residue remaining after the filtration of lake water or seawater with a plankton net (40μm-mesh).

*6: River bottom materials (incl. algae) are algae, etc. that were scratched off stones with a brush, etc. and may include very fine particles such as inorganic silt and clay.

*7: N.D. means to be below the detection limit and figures in parentheses show the detection limit.

*8: Activity concentrations include counting errors, but the details are omitted here.

Location		Sampling point	Sampling date	Division	Class	Order	Family	Scientific name	English name	Population	Sample weight (kg-wet)	Note			Radioactive cesium (Bq/kg-wet)			Sr-90 (Bq/kg-wet)
												Growth stage	Stomach contents	Measurement site	Total	Cs-134	Cs-137	
Mano River	D-3	The main stream of the Mano River	2019/8/30	Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	5	0.12	Immature fish,Mature fish	-	-	5.41	0.61	4.8	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Opsariichthys platypus</i>	Pale chub	38	0.41	Immature fish,Mature fish	-	-	6.5	N.D.(0.35)	6.5	-
			2019/8/22	Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Cyprinus carpio</i>	Common carp	1	0.022	Immature fish	-	-	6.9	N.D.(2.4)	6.9	-
			2019/8/30	Vertebrata	Osteichthyes	Salmoniformes	Osmeridae	<i>Plecoglossus altivelis altivelis</i>	Sweetfish	122	2.4	Immature fish,Mature fish	-	-	20.4	1.4	19	0.13
			2019/8/22	Vertebrata	Amphibia	Anura	Lithobates	<i>Lithobates catesbeianus</i>	American bullfrog	4	0.067	Larva(Tadpole)	-	-	40.4	3.4	37	-
	D-4 b	The main stream of the Mano River	2019/8/21	Algae/plant	-	-	-	-	Riverbed Deposits (Include algae)	-	0.0076	-	-	-	148.0	8.0	140	-
				Arthropoda	Insecta	Trichoptera	Stenopsychidae	<i>Stenopsyche marmorata</i>	Stenopsyche marmorata	77	0.012	Larva	-	-	59.1	3.1	56	-
				Arthropoda	Insecta	Odonata	Corduliidae	<i>Macromia amphigena amphigena</i>	Macromia amphigena	89	0.011	Larva(Dragonfly larva)	-	-	9.7	N.D.(3.1)	9.7	-
				Arthropoda	Insecta	Odonata	Cordulegastridae	<i>Anotogaster sieboldii</i>	Anotogaster sieboldii									
				Arthropoda	Insecta	Odonata	Gomphidae	<i>Stylogomphus suzukii</i>	Stylogomphus suzukii									
				Arthropoda	Insecta	Odonata	Gomphidae	<i>Melligomphus viridicostus</i>	Melligomphus viridicostus									
				Arthropoda	Insecta	Odonata	Gomphidae	<i>Sieboldius albardae</i>	Sieboldius albardae									
				Arthropoda	Insecta	Odonata	Gomphidae	<i>Davidius sp.</i>	<u>Davidius</u>									
				Arthropoda	Insecta	Odonata	Aeshnidae	<i>Boyeria maclachlani</i>	Boyeria maclachlani									
				Arthropoda	Insecta	Megaloptera	Corydalidae	<i>Protohermes grandis</i>	Protohermes grandis	40	0.023	Larva	-	-	10	N.D.(1.7)	10	-
				Arthropoda	Malacostraca	Decapoda	Palaemonidae	<i>Palaemon paucidens</i>	Common prawn	38	0.046	Imago	-	-	20	N.D.(1.5)	20	-
				Arthropoda	Malacostraca	Decapoda	Atyidae	<i>Paratya improvisa</i>	Freshwater shrimp	215	0.050	Juvenile,Imago	-	-	10	N.D.(1.4)	10	-
				Arthropoda	Malacostraca	Decapoda	Varunidae	<i>Eriocheir japonica</i>	Japanese mitten crab	6	0.16	Juvenile	-	-	30.5	1.5	29	-
				Vertebrata	Osteichthyes	Anguilliformes	Anguillidae	<i>Anguilla japonica</i>	Japanese eel	4	1.9	Mature fish	Freshwater shrimp,Japanese mitten Crab	Viscera removed	70.8	4.8	66	0.13
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Phoxinus lagowskii steindachneri</i>	Amur minnow	19	0.074	Immature fish,Mature fish	-	-	8.0	N.D.(1.2)	8.0	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	30	1.2	Immature fish,Mature fish	Obscure digesta	Viscera removed	18.5	1.5	17	0.19
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Opsariichthys platypus</i>	Pale chub	12	0.032	Immature fish	-	-	7.8	N.D.(2.2)	7.8	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Gnathopogon elongatus elongatus</i>	Gnathopogon elongatus elongatus	6	0.013	Immature fish	-	-	15	N.D.(2.7)	15	-
				Vertebrata	Osteichthyes	Cypriniformes	Cobitidae	<i>Cobitis biwae</i>	Cobitis biwae	6	0.012	Mature fish	-	-	9.6	N.D.(2.8)	9.6	-
				Vertebrata	Osteichthyes	Cypriniformes	Cobitidae	<i>Misgurnus anguillicaudatus</i>	Oriental weatherfish	3	0.034	Mature fish	-	-	5.5	N.D.(2.2)	5.5	-
				Vertebrata	Osteichthyes	Salmoniformes	Osmeridae	<i>Plecoglossus altivelis altivelis</i>	Sweetfish	25	0.50	Immature fish,Mature fish	-	-	43.8	2.8	41	-
				Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<i>Oncorhynchus masou</i>	Yamame trout	3	0.036	Immature fish	-	-	12	N.D.(1.6)	12	-
				Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Rhinogobius fluviatilis</i>	Rhinogobius fluviatilis	80	0.37	Mature fish	-	-	30.5	1.5	29	-
				Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Rhinogobius nagoyae</i>	Rhinogobius nagoyae									
				Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Rhinogobius sp.</i>	<u>Rhinogobius</u>									
				Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Gymnogobius castaneus</i>	Chestnut goby	4	0.0072	Immature fish,Mature fish	-	-	21	N.D.(4.0)	21	-
				Vertebrata	Osteichthyes	Siluriformes	Siluridae	<i>Silurus asotus</i>	Amur catfish	1	0.16	Immature fish	-	-	30.9	2.9	28	-
				Vertebrata	Cephalaspidomorphi	Petromyzontiformes	Petromyzontidae	<i>Lethenteron reissneri</i>	Far eastern brook lamprey	27	0.065	Ammocoetes(larva)	-	-	2.7	N.D.(1.1)	2.7	-
				Coarse Particulate Organic Matter	-	-	-	-	Bottom fallen leaves	-	0.25	-	-	-	22.8	1.8	21	-
	D-5	The main stream of the Mano River	2019/8/21	Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	24	0.20	Immature fish	-	-	23.6	1.6	22	-
				Vertebrata	Osteichthyes	Salmoniformes	Osmeridae	<i>Plecoglossus altivelis altivelis</i>	Sweetfish	29	0.51	Immature fish,Mature fish	-	-	38.5	2.5	36	-
			2019/8/30	Vertebrata	Osteichthyes	Salmoniformes	Osmeridae	<i>Plecoglossus altivelis altivelis</i>	Sweetfish	1	0.032	Mature fish	-	-	18.1	2.1	16	-
			2019/8/21	Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<i>Oncorhynchus masou</i>	Yamame trout	5	0.16	Immature fish	Ephemeroptera(imago),Isonychia japonica,Goera japonica,Cheumatopsyche,Simulium vittatum,Midge,Baetidae(larva)	Viscera removed	14.93	0.93	14	-
			2019/8/30	Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<i>Oncorhynchus masou</i>	Yamame trout	14	0.69	Immature fish,Mature fish	Epiophlebia superstes(larva),Megascolecidae,Millipede,Lepidoptera(larva),Frog,Fish,Plant pieces,Parachauliodes(larva),Siphonuridae(larva)	Viscera removed	107.1	7.1	100	-

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*4: Basically, measurement was conducted for all organism samples. Viscera (stomach and bowels) were removed for the measurement when possible so that undigested food and sediments, etc. in the digestive system would be excluded.

*5: Plankton (suspended algae) is the residue remaining after the filtration of lake water or seawater with a plankton net (40μm-mesh).

*6: River bottom materials (incl. algae) are algae, etc. that were scratched off stones with a brush, etc. and may include very fine particles such as inorganic silt and clay.

*7: N.D. means to be below the detection limit and figures in parentheses show the detection limit.

*8: Activity concentrations include counting errors, but the details are omitted here.

Location		Sampling point	Sampling date	Division	Class	Order	Family	Scientific name	English name	Population	Sample weight (kg-wet)	Note			Radioactive cesium (Bq/kg-wet)			Sr-90 (Bq/kg-wet)
												Growth stage	Stomach contents	Measurement site	Total	Cs-134	Cs-137	
Niida River	E-2 b	The main stream of the Niida River	2019/8/29	Algae/plant	-	-	-	-	Riverbed Deposits (Include algae)	-	0.012	-	-	-	45.8	3.8	42	-
				Arthropoda	Insecta	Trichoptera	Stenopsychidae	<i>Stenopsyche marmorata</i>	Stenopsyche marmorata	185	0.024	Larva	-	-	151	11	140	-
				Arthropoda	Insecta	Odonata	Corduliidae	<i>Macromia amphigena amphigena</i>	<u>Macromia amphigena</u>	30	0.013	Larva(Dragonfly larva)	-	-	20	N.D.(3.0)	20	-
				Arthropoda	Insecta	Odonata	Gomphidae	<i>Melligomphus viridicostus</i>	Melligomphus viridicostus									
				Arthropoda	Insecta	Odonata	Gomphidae	<i>Sieboldius albardae</i>	Sieboldius albardae									
				Arthropoda	Insecta	Odonata	Gomphidae	<i>Davidius sp.</i>	Davidius									
				Arthropoda	Insecta	Megaloptera	Corydalidae	<i>Protohermes grandis</i>	Protohermes grandis	12	0.010	Larva	-	-	17	N.D.(3.1)	17	-
				Arthropoda	Malacostraca	Decapoda	Palaemonidae	<i>Palaemon paucidens</i>	Common prawn	26	0.036	Imago	-	-	29.5	1.5	28	-
				Arthropoda	Malacostraca	Decapoda	Varunidae	<i>Eriocheir japonica</i>	Japanese mitten crab	13	0.11	Juvenile	-	-	43.8	2.8	41	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	60	0.79	Immature fish	-	-	32.2	2.2	30	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Opsariichthys platypus</i>	Pale chub	50	0.28	Immature fish	-	-	20.3	1.3	19	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Pseudogobio esocinus esocinus</i>	Pseudogobio esocinus esocinus	1	0.023	Mature fish	-	-	18	N.D.(3.2)	18	-
				Vertebrata	Osteichthyes	Salmoniformes	Osmeridae	<i>Plecoglossus altivelis altivelis</i>	Sweetfish	10	0.24	Immature fish,Mature fish	-	-	94.3	6.3	88	-
				Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Rhinogobius fluviatilis</i>	Rhinogobius fluviatilis	21	0.073	Mature fish	-	-	39.3	2.3	37	-
				Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Rhinogobius nagoyae</i>	<u>Rhinogobius nagoyae</u>									
				Vertebrata	Amphibia	Anura	Ranidae	<i>Rana japonica</i>	Japanese brown frog	4	0.012	Imago	-	-	12	N.D.(3.0)	12	-
				Vertebrata	Amphibia	Anura	Hylidae	<i>Hyla japonica</i>	<u>Japanese tree flog</u>									
				Vertebrata	Amphibia	Anura	Pelophylax	<i>Pelophylax porosus porosus</i>	Tokyo daruma pond frog									
				Coarse Particulate Organic Matter	-	-	-	-	Bottom fallen leaves	-	0.24	-	-	-	106.6	6.6	100	-
Ota River	F-1	The main stream of the Ota River	2019/8/22	Algae/plant	-	-	-	-	Riverbed Deposits (Include algae)	-	0.0082	-	-	-	238	18	220	-
				Arthropoda	Insecta	Ephemeroptera	Isonychiidae	<i>Isonychia valida</i>	Isonychia valida	195	0.012	Larva	-	-	511	41	470	-
				Arthropoda	Insecta	Trichoptera	Stenopsychidae	<i>Stenopsyche marmorata</i>	Stenopsyche marmorata	155	0.042	Larva	-	-	213	13	200	-
				Arthropoda	Insecta	Odonata	Corduliidae	<i>Macromia amphigena amphigena</i>	Macromia amphigena	46	0.013	Larva(Dragonfly larva)	-	-	105.6	5.6	100	-
				Arthropoda	Insecta	Odonata	Cordulegastridae	<i>Anotogaster sieboldii</i>	Anotogaster sieboldii									
				Arthropoda	Insecta	Odonata	Gomphidae	<i>Stylogomphus suzukii</i>	Stylogomphus suzukii									
				Arthropoda	Insecta	Odonata	Gomphidae	<i>Melligomphus viridicostus</i>	<u>Melligomphus viridicostus</u>									
				Arthropoda	Insecta	Odonata	Gomphidae	<i>Sieboldius albardae</i>	Sieboldius albardae									
				Arthropoda	Insecta	Odonata	Gomphidae	<i>Davidius sp.</i>	Davidius									
				Arthropoda	Insecta	Odonata	Gomphidae	<i>Asiagomphus melaenops</i>	Asiagomphus melaenops									
				Arthropoda	Insecta	Odonata	Aeshnidae	<i>Anax parthenope julius</i>	Anax parthenope julius									
				Arthropoda	Insecta	Megaloptera	Corydalidae	<i>Protohermes grandis</i>	<u>Protohermes grandis</u>	14	0.0088	Larva	-	-	51	N.D.(15)	51	-
				Arthropoda	Insecta	Megaloptera	Corydalidae	<i>Parachauliodes japonicus</i>	Parachauliodes japonicus									
				Arthropoda	Malacostraca	Decapoda	Palaemonidae	<i>Palaemon paucidens</i>	Common prawn	41	0.059	Imago	-	-	256	16	240	-
				Vertebrata	Osteichthyes	Anguilliformes	Anguillidae	<i>Anguilla japonica</i>	Japanese eel	5	0.59	Immature fish,Mature fish	Obscure digesta	Viscera removed	493	33	460	-
				Vertebrata	Osteichthyes	Scorpaeniformes	Cottidae	<i>Cottus pollux</i>	Japanese fluvial sculpin	4	0.10	Immature fish	Isonychia japonica,Stenopsych e marmorata	Viscera removed	311	21	290	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	20	0.20	Immature fish	-	-	256	16	240	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Opsariichthys platypus</i>	Pale chub	2	0.015	Immature fish	-	-	270	20	250	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Candidia temminckii</i>	Dark chub	35	0.15	Immature fish,Mature fish	-	-	160	10	150	-
				Vertebrata	Osteichthyes	Salmoniformes	Osmeridae	<i>Plecoglossus altivelis altivelis</i>	Sweetfish	2	0.040	Immature fish	-	-	397	27	370	-
				Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Rhinogobius fluviatilis</i>	Rhinogobius fluviatilis	7	0.028	Mature fish	-	-	559	39	520	-
				Vertebrata	Amphibia	Anura	Bufonidae	<i>Bufo japonicus formosus</i>	Japanese toad	1	0.14	Imago	-	-	43.8	2.8	41	-
				Coarse Particulate Organic Matter	-	-	-	-	Bottom fallen leaves	-	0.25	-	-	-	53.7	3.7	50	-
	F-5	The main stream of the Ota River	2019/8/22	Vertebrata	Osteichthyes	Anguilliformes	Anguillidae	<i>Anguilla japonica</i>	Japanese eel	2	1.2	Immature fish,Mature fish	Japanese mitten Crab,Red swamp crawfish	Viscera removed	437	27	410	0.51
				Vertebrata	Osteichthyes	Scorpaeniformes	Cottidae	<i>Cottus reinii</i>	Sculpin	6	0.044	Immature fish	-	-	41.7	3.7	38	-

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*8: Activity concentrations include counting errors, but the details are omitted here.

Location		Sampling point	Sampling date	Division	Class	Order	Family	Scientific name	English name	Population	Sample weight (kg-wet)	Note			Radioactive cesium (Bq/kg-wet)			Sr-90 (Bq/kg-wet)
												Growth stage	Stomach contents	Measurement site	Total	Cs-134	Cs-137	
Lake Hayama	G-1 G-2 G-3	In the lake	2019/8/30	Algae/plant	-	-	-	-	Plankton (Planktonic algae)	-	0.010	-	-	-	N.D.	N.D.(2.8)	N.D.(2.7)	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	1	0.21	Mature fish	Empty stomach	Viscera removed	138.2	8.2	130	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Cyprinus carpio</i>	Common carp	3	0.0060	Immature fish	-	-	28	N.D.(7.2)	28	-
				Vertebrata	Osteichthyes	Cypriniformes	Cobitidae	<i>Misgurnus anguillicaudatus</i>	Oriental weatherfish	1	0.010	Mature fish	-	-	16	N.D.(3.2)	16	-
				Vertebrata	Osteichthyes	Perciformes	Centrarchidae	<i>Micropterus dolomieu</i>	Small mouth bass	2	1.5	Mature fish	Bluegill,American bullfrog(Tadpole)	Viscera removed	151	11	140	0.80
				Vertebrata	Osteichthyes	Perciformes	Centrarchidae	<i>Lepomis macrochirus</i>	Bluegill	8	0.28	Immature fish	Plant pieces	Viscera removed	25.5	1.5	24	-
				Vertebrata	Osteichthyes	Perciformes	Centrarchidae	<i>Lepomis macrochirus</i>	Bluegill	4	0.23	Immature fish,Mature fish	Plant pieces	Viscera removed	30.9	1.9	29	-
				Vertebrata	Osteichthyes	Siluriformes	Siluridae	<i>Silurus asotus</i>	Amur catfish	2	2.6	Mature fish	Fish	Viscera removed	298	18	280	0.46
				Vertebrata	Amphibia	Anura	Lithobates	<i>Lithobates catesbeianus</i>	American bullfrog	21	0.036	Larva(Tadpole)	-	-	431	31	400	-
	G-4	Inflowing rivers	2019/8/21	Algae/plant	-	-	-	-	Riverbed Deposits (Include algae)	-	0.0054	-	-	-	301	21	280	-
				Arthropoda	Insecta	Ephemeroptera	Isonychiidae	<i>Isonychia valida</i>	Isonychia valida	477	0.018	Larva	-	-	131	11	120	-
				Arthropoda	Insecta	Megaloptera	Corydalidae	<i>Protohermes grandis</i>	Protohermes grandis	15	0.0088	Larva	-	-	27	N.D.(4.5)	27	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Phoxinus lagowskii steindachneri</i>	Amur minnow	6	0.031	Immature fish,Mature fish	-	-	17	N.D.(5.8)	17	-
			2019/8/30	Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	2	0.021	Immature fish	-	-	20	N.D.(1.8)	20	-
			2019/8/21	Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	152	1.5	Immature fish,Mature fish	-	-	19.6	1.6	18	0.30
			2019/8/30	Vertebrata	Osteichthyes	Salmoniformes	Osmeridae	<i>Plecoglossus altivelis altivelis</i>	Sweetfish	8	0.091	Immature fish	-	-	49.6	2.6	47	-
			2019/8/21	Vertebrata	Osteichthyes	Salmoniformes	Osmeridae	<i>Plecoglossus altivelis altivelis</i>	Sweetfish	32	1.1	Immature fish,Mature fish	-	-	47.7	2.7	45	0.37
			2019/8/30	Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<i>Oncorhynchus masou</i>	Yamame trout	26	0.26	Immature fish	-	-	17.3	1.3	16	-
			2019/8/21	Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<i>Oncorhynchus masou</i>	Yamame trout	65	0.46	Immature fish	Sand,Plant pieces, Terrestrial insect,Ant,Rhyacophili dae(larva),Hydropsychi dae(larva),Isonychia japonica(larva),Ephem erellidae(larva),Metro coris histrio	Viscera removed	19.96	0.96	19	-
				Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Rhinogobius flumineus</i>	Rhinogobius flumineus	22	0.053	Immature fish	-	-	20	N.D.(4.5)	20	-
				Vertebrata	Osteichthyes	Siluriformes	Siluridae	<i>Silurus asotus</i>	Amur catfish	2	2.5	Mature fish	Fish	Viscera removed	138.7	8.7	130	0.57
				Coarse Particulate Organic Matter	-	-	-	-	Bottom fallen leaves	-	0.23	-	-	-	70.2	5.2	65	-
Lake Akimoto	H-1 H-2 H-3	In the lake	2019/8/27	Algae/plant	-	-	-	-	Plankton (Planktonic algae)	-	0.012	-	-	-	N.D.	N.D.(2.6)	N.D.(2.3)	-
			2019/9/3	Arthropoda	Malacostraca	Decapoda	Astacidae	<i>Pacifastacus leniusculus trowbridgii</i>	Signal crayfish	10	0.40	Imago	-	-	28.9	1.9	27	8.0
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	12	2.6	Mature fish	Obscure digesta	Viscera removed	59.0	3.0	56	0.70
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Carassius auratus</i>	Carassius auratus langsdorfii	4	3.4	Mature fish	Obscure digesta	Viscera removed	31.0	2.0	29	1.3
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Hemibarbus barbus</i>	Hemibarbus barbus	8	2.3	Immature fish,Mature fish	Obscure digesta	Viscera removed	45.0	3.0	42	1.1
				Vertebrata	Osteichthyes	Salmoniformes	Osmeridae	<i>Hypomesus nipponensis</i>	Japanese smelt	59	0.17	Immature fish,Mature fish	-	-	8.04	0.54	7.5	-
				Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<i>Salvelinus leucomaenis</i>	Char	9	1.3	Mature fish	Japanese smelt	Viscera removed	27.6	1.6	26	0.33
				Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<i>Oncorhynchus masou masou</i>	Seema	4	1.2	Immature fish	Japanese smelt	Viscera removed	21.2	1.2	20	0.31
				Vertebrata	Osteichthyes	Perciformes	Centrarchidae	<i>Micropterus dolomieu</i>	Small mouth bass	13	2.8	Immature fish	Common prawn,Japanese smelt	Viscera removed	34.6	1.6	33	0.96
				Vertebrata	Osteichthyes	Perciformes	Centrarchidae	<i>Lepomis macrochirus</i>	Bluegill	1	0.018	Immature fish	Empty stomach	Viscera removed	13	N.D.(1.9)	13	-
	H-3	Inflowing rivers	2019/8/27	Coarse Particulate Organic Matter	-	-	-	-	Bottom fallen leaves	-	0.26	-	-	-	28.4	2.4	26	-
	H-4	Within the lake and rivers in the vicinity	2019/8/27	Algae/plant	Monocotyledoneae	Alismatales	Hydrocharitaceae	<i>Elodea nuttallii</i>	Western waterweed	-	0.30	-	-	-	6.89	0.59	6.3	-
			2019/8/26	Arthropoda	Insecta	Odonata	Corduliidae	<i>Somatochlora uchidai</i>	<u>Somatochlora uchidai</u>	113	0.014	Larva(Dragonfly larva)	-	-	3.2	N.D.(2.4)	3.2	-
				Arthropoda	Insecta	Odonata	Gomphidae	<i>Trigomphus melampus</i>	Trigomphus melampus									
				Arthropoda	Insecta	Odonata	Aeshnidae	<i>Aeshna juncea</i>	Common hawker									
				Vertebrata	Amphibia	Anura	-	-	Frog	90	0.058	Larva(Tadpole)	-	-	56.9	3.9	53	-
				Vertebrata	Amphibia	Anura	Ranidae	<i>Rana ornativentris</i>	Montane brown frog	7	0.028	Imago	-	-	5.9	N.D.(1.7)	5.9	-
				Vertebrata	Amphibia	Anura	Glandirana	<i>Glandirana rugosa</i>	<u>Wrinkled frog</u>									
				Vertebrata	Amphibia	Caudata	Hynobiidae	<i>Hynobius nigrescens</i>	Blacked salamander	45	0.033	Larva	-	-	5.7	N.D.(1.8)	5.7	-

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Location		Sampling point	Sampling date	Division	Class	Order	Family	Scientific name	English name	Population	Sample weight (kg-wet)	Note			Radioactive cesium (Bq/kg-wet)			Sr-90 (Bq/kg-wet)
												Growth stage	Stomach contents	Measurement site	Total	Cs-134	Cs-137	
Lake Inawashiro	I-1 I-2 (north lakeside)	Within the lake and Nagase River	2019/8/26	Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Carassius auratus</i>	Carassius auratus langsdorfii	11	0.010	Immature fish	-	-	N.D.	N.D.(3.2)	N.D.(3.0)	-
				Coarse Particulate Organic Matter	-	-	-	-	Bottom fallen leaves	-	0.14	-	-	-	5.46	0.46	5.0	-
	J-1 (south lakeside)	Within the lake and around the Oninuma	2019/8/23	Algae/plant	-	-	-	-	Plankton (Planktonic algae)	-	0.0092	-	-	-	N.D.	N.D.(3.8)	N.D.(3.6)	-
				Arthropoda	Malacostraca	Decapoda	Palaemonidae	<i>Palaemon paucidens</i>	Common prawn	38	0.016	Juvenile,Imago	-	-	N.D.	N.D.(2.9)	N.D.(2.9)	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	15	0.10	Immature fish	-	-	9.61	0.71	8.9	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Opsariichthys platypus</i>	Pale chub	5	0.061	Immature fish,Mature fish	-	-	7.0	N.D.(1.2)	7.0	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Opsariichthys platypus</i>	Pale chub	23	0.22	Immature fish,Mature fish	-	-	3.8	N.D.(1.2)	3.8	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Pseudogobio esocinus esocinus</i>	Pseudogobio esocinus esocinus	2	0.028	Immature fish	-	-	1.8	N.D.(1.8)	1.8	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Carassius auratus</i>	Carassius auratus langsdorfii	10	2.7	Mature fish	Obscure digesta	Viscera removed	24.5	1.5	23	0.43
				Vertebrata	Osteichthyes	Cypriniformes	Cobitidae	<i>Misgurnus anguillicaudatus</i>	Oriental weatherfish	25	0.11	Immature fish,Mature fish	-	-	1.7	N.D.(0.85)	1.7	-
				Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<i>Oncorhynchus mykiss</i>	Rainbow trout	2	0.030	Immature fish	-	-	N.D.	N.D.(1.9)	N.D.(1.7)	-
				Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<i>Oncorhynchus masou</i>	Yamame trout	3	0.12	Immature fish	Stenopsyche marmorata,Fish,Ephemeroptera(larva),Terrestrial insect,Spiders,Ant,Dytiscidae(larva)	Viscera removed	0.88	N.D.(0.72)	0.88	-
				Vertebrata	Osteichthyes	Perciformes	Centrarchidae	<i>Micropterus dolomieu</i>	Small mouth bass	3	0.51	Immature fish	Japanese smelt,Common prawn	Viscera removed	21.6	1.6	20	-
				Vertebrata	Osteichthyes	Perciformes	Centrarchidae	<i>Lepomis macrochirus</i>	Bluegill	1	0.076	Immature fish	Obscure digesta	Viscera removed	8.7	N.D.(0.80)	8.7	-
				Vertebrata	Osteichthyes	Perciformes	Actinopterygii	<i>Channa argus</i>	Snakehead	1	1.2	Mature fish	Empty stomach	Viscera removed	30.1	2.1	28	0.79
				Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Gymnogobius urotaenia</i>	Goby	115	0.42	Immature fish	-	-	2.3	N.D.(0.66)	2.3	-
				Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Rhinogobius kurodai</i>	Rhinogobius kurodai	381	0.21	Immature fish,Mature fish	-	-	1.4	N.D.(0.61)	1.4	-
				Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Rhinogobius sp.</i>	<u>Rhinogobius</u>									
				Vertebrata	Osteichthyes	Siluriformes	Siluridae	<i>Silurus asotus</i>	Amur catfish	3	0.54	Immature fish,Mature fish	Common prawn,Fish,Lyristes japonicus	Viscera removed	8.19	0.49	7.7	-
				Vertebrata	Amphibia	Anura	-	-	Frog	8	0.011	Larva(Tadpole)	-	-	3.5	N.D.(3.1)	3.5	-

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												Growth stage	Stomach contents	Measurement site	Total	Cs-134	Cs-137	
Off the mouth of the Abukuma River	Surrounding water area off the mouth of the Abukuma River	Sea area in front of the Abukuma River Estuary	2019/8/21	Vertebrata	Osteichthyes	Scorpaeniformes	Hexagrammidae	<i>Hexagrammos otakii</i>	Fat greenling	1	0.43	Mature fish	Crab,Shellfish	Viscera removed	0.85	N.D.(0.39)	0.85	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon brandti</i>	Pacific redfin	2	2.6	Mature fish	Obscure digesta	Viscera removed	1.5	N.D.(0.35)	1.5	0.074
				Vertebrata	Osteichthyes	Tetraodontiformes	Tetraodontidae	<i>Takifugu pardalis</i>	Panther puffer	1	0.69	Mature fish	Empty stomach	Viscera removed	0.55	N.D.(0.34)	0.55	-
Off Soma City	L-1 L-2 L-3	Matsukawaura Lagoon	2019/8/20	Algae/plant	-	-	-	-	Plankton (Planktonic algae)	-	0.011	-	-	-	28	N.D.(3.5)	28	-
				Annelida	Polychaeta	Eunicida	Lumbrineridae	<i>Lumbrineridae</i>	<u>Lumbrineridae</u>	93	0.054	Juvenile,Imago	-	-	1.7	N.D.(0.96)	1.7	-
				Annelida	Polychaeta	Spionida	Cirratulidae	<i>Cirratulida</i>	Polychaeta									
				Arthropoda	Malacostraca	Decapoda	Alpheidae	<i>Alpheidae</i>	Alpheidae	23	0.036	Juvenile,Imago	-	-	1.6	N.D.(1.3)	1.6	-
				Arthropoda	Malacostraca	Decapoda	Palaemonidae	<i>Palaemon sp.</i>	Palaemon	98	0.044	Juvenile,Imago	-	-	1.8	N.D.(1.0)	1.8	-
				Arthropoda	Malacostraca	Decapoda	Varunidae	<i>Hemigrapsus sp.</i>	Hemigrapsus	30	0.063	Juvenile,Imago	-	-	3.6	N.D.(0.70)	3.6	-
				Arthropoda	Malacostraca	Decapoda	Portunidae	<i>Charybdis japonica</i>	Shore swimming crab	2	0.11	Juvenile	-	-	0.86	N.D.(0.65)	0.86	-
				Mollusca	Bivalvia	Veneroida	Veneridae	<i>Ruditapes philippinarum</i>	Japanese littleneck	30	0.048	Juvenile,Imago	-	Molluscou	1.7	N.D.(1.2)	1.7	-
				Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Tridentiger trigonocephalus</i>	Chameleon goby	78	0.11	Immature fish	-	-	1.7	N.D.(0.61)	1.7	-
				Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Acanthogobius lactipes</i>	Whitelimbed goby									
				Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Acentrogobius virgatus</i>	Acentrogobius virgatus									
				Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Tridentiger obscurus</i>	Dusky tripletooth goby									
				Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Gobiidae</i>	<u>Gobiidae</u>									
				Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Favonigobius gymnauchen</i>	Favonigobius gymnauchen									
				Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Acanthogobius flavimanus</i>	Yellowfin Goby	2	0.050	Immature fish,Mature fish	-	-	1.6	N.D.(1.2)	1.6	-
				Vertebrata	Osteichthyes	Tetraodontiformes	Tetraodontidae	<i>Takifugu niphobles</i>	Takifugu niphobles	2	0.093	Immature fish,Mature fish	-	-	1.2	N.D.(0.65)	1.2	-
Off Iwaki City	M-1 M-2 M-3	Offshore of Hisanohama	2019/8/20	Vertebrata	Osteichthyes	Scorpaeniformes	Triglidae	<i>Chelidonichthys spinosus</i>	Gurnard	3	0.75	Mature fish	Shrimp,Crab,Fish	Viscera removed	0.54	N.D.(0.36)	0.54	-
				Vertebrata	Osteichthyes	Pleuronectiformes	Pleuronectidae	<i>Pleuronectes yokohamae</i>	Marbled sole	4	1.2	Immature fish,Mature fish	Obscure digesta	Viscera removed	1.0	N.D.(0.38)	1.0	-
				Vertebrata	Osteichthyes	Pleuronectiformes	Pleuronectidae	<i>Eopsetta grigorjewi</i>	Shotted halibut	2	0.38	Immature fish	Crab	Viscera removed	0.73	N.D.(0.37)	0.73	-
				Vertebrata	Osteichthyes	Pleuronectiformes	Paralichthyidae	<i>Paralichthys olivaceus</i>	Bastard halibut	2	3.1	Mature fish	Empty stomach	Viscera removed	0.44	N.D.(0.35)	0.44	N.D.(0.018)
				Vertebrata	Osteichthyes	Perciformes	Sparidae	<i>Pagrus major</i>	Red seabream	2	1.9	Immature fish,Mature fish	Shellfish	Viscera removed	0.56	N.D.(0.28)	0.56	-
				Vertebrata	Osteichthyes	Zeiformes	Zeidae	<i>Zeus faber</i>	John dory	3	1.9	Immature fish,Mature fish	Empty stomach	Viscera removed	0.47	N.D.(0.38)	0.47	-
				Vertebrata	Chondrichthyes	Squatini	Squatina	<i>Squatina japonica</i>	Japanese angelshark	1	4.6	Mature fish	Empty stomach	Viscera removed	3.7	N.D.(0.31)	3.7	-
				Vertebrata	Chondrichthyes	Carcharhini	Triakidae	<i>Mustelus manazo</i>	Starspotted smooth-hound	2	2.6	Immature fish	Crab	Viscera removed	1.4	N.D.(0.41)	1.4	-
	M-4	Hisanohama Coastal areas	2019/8/20	Algae/plant	Phaeophyceae	Laminariales	Laminariaceae	<i>Eisenia bicyclis</i>	Eisenia bicyclis	-	1.5	-	-	-	0.26	N.D.(0.080)	0.26	-
				Mollusca	Gastropoda	Archaeogastropoda	Haliotidae	<i>Haliotis sp.</i>	Abalone	3	0.39	Imago	-	Molluscou	N.D.	N.D.(0.40)	N.D.(0.35)	-
				Echinodermata	Echinoidea	Echinoida	Strongylocentrotidae	<i>Strongylocentrotus nudus</i>	Northern sea urchin	5	0.58	Imago	-	-	N.D.	N.D.(0.30)	N.D.(0.30)	-

*1: Organisms were collected in or around the targeted water areas.

*2: When multiple types of aquatic organisms were collected, a sample was prepared by mixing them.

*3: For a sample made of multiple types of aquatic organisms, the English name of the dominant one largest in number is underlined.

*4: Basically, measurement was conducted for all organism samples. Viscera (stomach and bowels) were removed for the measurement when possible so that undigested food and sediments, etc. in the digestive system would be excluded.

*5: Plankton (suspended algae) is the residue remaining after the filtration of lake water or seawater with a plankton net (40μm-mesh).

*6: River bottom materials (incl. algae) are algae, etc. that were scratched off stones with a brush, etc. and may include very fine particles such as inorganic silt and clay.

*7: N.D. means to be below the detection limit and figures in parentheses show the detection limit.

*8: Activity concentrations include counting errors, but the details are omitted here.